SYNOPSIS OF WSDOT'S
REVIEW OF HIGHWAY MAINTENANCE
"OUTSOURCING" EXPERIENCE

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ABSTRACT
Discussion is occurring in many states on whether the outsourcing of traditional categories of state-provided highway maintenance could produce savings in costs or improvements in service. While marketing materials and promotional press releases tout the attractions of outsourcing, insufficient attention has been paid to a growing body of follow-up information – much of it from official audit sources – of actual outsourcing experience.

This paper gathers after-the-fact reviews of highway maintenance outsourcing performance from programs in five states and British Columbia. On inspection, cases are found where costs may have gone up instead of down, services deteriorated rather than improved, administrative and supervisory arrangements proved problematic, and contractor failures left states scrambling to provide services or caught in the distraction of litigation. Massachusetts did not expand a much-criticized pilot program. Virginia's highway maintenance asset management program has been off-again, on-again, with significant mid-stream reshaping. Oklahoma canceled its pilot program. Texas is evaluating whether or not to renew its contracts. Florida is poised to expand highway maintenance outsourcing programs as part of a government wide privatization commitment. British Columbia has been left with no choice but to continue a program that displaced its own-force capabilities, despite unclear cost results and shrinking competition among vendors.

Despite the range of experiences common themes emerging from these reviews can be translated into "lessons learned" for state officials considering programs of this type. One clear lesson is the need for proper planning and scoping. The initial exploratory phases should include asset inventories, activity based costs and economic analyses based on "before" and "after" apples-to-apples cost comparisons. Risk management reviews should consider possible litigation risks and costs. Managers should develop program exit strategies in addition to well-written contracts and specifications. Contracts should include clear performance expectations, evaluation schedules, and financial performance incentives or disincentives. Finally, an experienced management team must be in place to administer and evaluate the contracts. Examining these lessons can support more effective use of public resources, leading to wiser choices as to whether outsourcing should be undertaken, and, if it is, what public management strategies and resource commitments will be necessary to make it successful.

The research reported in this paper was undertaken in part to prepare for the implementation in 2005 of recent legislation in Washington State opening new possibilities for "competitive contracting" of state services.

INTRODUCTION

The purpose of this paper is to draw "lessons learned" from reviewing several of the better-known highway maintenance outsourcing initiatives and to suggest ways to apply that experience to future highway maintenance outsourcing endeavors.

Highway maintenance privatization programs are considered for their potential to provide cost savings, increase level of service, supplement state resources, make use of scarce skills, tap specialized areas of expertise, meet peak demands associated with accelerated schedules, and implement political directives. While promises and declarations of significant cost savings and other benefits are prevalent, there has been little follow up to determine whether initial claims of success and savings have been achieved in actual experience. In fact it appears that independent audits, as well as other critical reviews, have been under reported in industry and research publications. This paper reviews a number of sources to examine whether anticipated benefits have been verified by retrospective evaluation. This research based on reoccurring themes from various highway maintenance-outsourcing programs in five other states, Massachusetts, Virginia, Oklahoma, Texas, and Florida and in British Columbia, indicates that early claims of success should be met with considerable caution.

Some of the cases and their subsequent audit reviews find cost overruns instead of cost savings, inaccurate cost analyses based on incomplete estimates, unanticipated administration difficulties, contractor failures, public outcry, legislative or political loss of interest (or even official condemnation) in contracting, and in one case a well documented precipitous drop in level of service in all areas.

Before undertaking highway maintenance outsourcing it is unwise to ignore or gloss over any of the following influencing factors or preliminary steps:

- Scoping and planning,
- Asset management complexities of highway maintenance service delivery (including the dynamic of least life cycle costs),
- Economic analyses,
- Asset inventories,
- Service delivery and activity costs,
- Contract administration responsibilities and costs,
- Cost savings based on actual cost comparisons,
- Contracts and specifications,
- Performance measures and evaluations,
- Competitive market analyses,
- Political motivations,
- Public expectations, and
- Exit strategies and contingencies.

Lessons learned can be used to inform future public policy and improve the delivery of highway maintenance. Suggestions for improvements are summarized in the conclusion of this paper. Optimum benefits may be realized when responsibility and support for these improvements are evenly supported by politicians, state officials, and contractors alike.

MASSACHUSETTS
Privatization of state government services in Massachusetts was a contentious issue touching not only the state highway department but also many other areas under the administrations of Governors Weld (1990 - 1997), and Cellucci (1997-2001) and Acting Governor Swift (2001-2003). Reports and counter-reports are numerous and far from consistent in their quality or objectivity. Readers have no choice but to make their own judgments about the value of some of the documents, to say nothing of the broader political and ideological contentions that permeate the debate. The following observations seemed most fairly drawn from the available materials.

Massachusetts State Highway Maintenance Outsourcing Pilot in Essex County
Massachusetts undertook a pilot project for outsourcing of highway maintenance on state roads in Essex County in 1992, following pronouncements by incoming Governor Weld that privatization could result in large taxpayer savings.

Information about the specific results of the program can be obtained in a report by the state legislature's House Post Audit and Oversight Bureau, *Interim Review of Essex County Privatization* (1994). The report concluded that the contracting out process, owing to its political character, gave inadequate attention to asset inventories, contract details, costs, and oversight arrangements. Lax state oversight and poor contractor performance led to many problems in the short term and raised questions whether the program would jeopardize the longer term interests of infrastructure preservation. The post-audit report found, among other things, that state workers were actually performing as much as 35% of the work supposedly covered in the "outsourcing" and that other costs were being hidden by the state to polish the financial appearance of the program.

Another official report, the *State Auditor's Report on the Privatization of the Maintenance of State Roads in Essex County October 7, 1992 to October 6, 1993*, issued July 19, 1995, concluded that the pilot resulted in a loss to the state of over one million dollars. The first major finding was that an "inadequate cost analysis [had been] performed by the Massachusetts Highway Department." The second was that claims of benefits and other savings were unsubstantiated.

> Moreover, the additional services under the privatization contract are based on MHD estimates of quantities and prices for the job activities listed in the contract. When asked how it determined the unit quantities and prices, MHD stated that no specific supporting documents existed. In addition, MHD had not conducted site visits to evaluate conditions in the district and had not performed a historical analysis of previous work in the district that would support the quantities shown in this contract. Also, MHD had not performed a cost analysis of these job activities with an expected profit margin for the contractor.
>
> Without such data, meaningful comparisons between the cost of doing the work in-house and using private contractors cannot be made (*State Auditor's Report on the Privatization of the Maintenance of State Roads in Essex County October 7, 1992 to October 6, 1993*, issued July 19, 1995, page 9).

On the other side of the debate, state officials who helped conduct the program have offered little or no documentation, despite their pronouncements of cost and performance achievements (See Segal, Geoffrey F., *Contracting for Road and Highway*

Maintenance (Reason Foundation, 2003), 22 – 25, citing Charles Kostro, Deputy Commissioner, Mass. Highway Department, "interview with authors," 2002).

This pilot is also reviewed in detail in Sklar, Elliot D., *You Don't Always Get What You Pay For: The Economics of Privatization,* Cornell University Press. 2000. Sklar concludes, among other points, that the contracting process was driven by a desire for a political "win" and fell into the trap of proceeding with an inadequate contract concept and poor understandings of the costs and activities necessary to write a suitable contract.

Massachusetts did not expand the Essex County pilot to the other areas of the state (Personal Communication with Astrid Glynn and David Rock, MassHighway Department).

Massachusetts Route 3 "Design/Build/Operate Contract

On another front in Massachusetts, a major highway expansion (lane and bridge widening and other improvements to Route 3) was conceptualized by the highway department as a "Design/Build/Operate" contract and is often described as such in industry literature. The contract entered into by the state in 2000 provided for the engineering and construction of the highway expansion (underway and now scheduled for completion in 2003; the project is financed by long-term payments to the contractor from the state and does not include any tolling or project revenue features). The actual contract, however, did not in fact provide specification and price terms for future "operate" or "maintenance" functions. These were left for future negotiation. Recent reports are that the state under the new administration of Governor Romney is finding difficulty in reaching agreement on price and contract terms with the project contractor and it is now in doubt whether any of the anticipated "operate" features of the arrangements will be effectuated, or, if so, what cluster of possible maintenance functions will be included in an outsourced "operate" portfolio.

A measure of the overall experience of Massachusetts's management approach to maintenance may be drawn from incoming Governor Romney's inaugural transportation policy declaration to a "fix it first" policy that would "target transportation dollars to repairing the state's crumbling roads and bridges." Romney said that the existing system could no longer be allowed to crumble under the weight of official neglect ("*On Transportation, Romney Promises to "Fix it First*," Governor's Press Release, January 14, 2003).

VIRGINIA

In 1996, Virginia DOT accepted an unsolicited proposal from VMS, Inc., a transportation and operations firm in Richmond, for a five year (1997-2002) fence to fence performance based maintenance contracts for 246 miles of interstate highway on parts of routes 95 and 81 and all of routes 77 and 381. These contracts were for services on 23% of Virginia's interstate system and 1% of state maintained lane miles. The initial five-year cost of the contract was $131 million.

It was claimed by the state and VMS, Inc. in widely distributed initial publicity materials that the contract saved Virginia taxpayers $23 million. A study commissioned by VDOT from Virginia Tech in 2000 buttressed this claim, but at a reduced savings "range" of $16 million to $23 million.

The Joint Legislative Audit and Review Commission (JLARC) of the Virginia General Assembly developed information about the actual performance of the contract (Joint Legislative Audit and Review Commission of the Virginia General Assembly, Review of VDOT's Administration of the Interstate Asset Management Contract, January 11, 2001).

The JLARC review concluded that the savings claim was, on inspection, neither "accurate nor verifiable." The JLARC review said of the Virginia Tech study that "because of its narrow scope, [it] may not provide conclusive findings on the overall cost effectiveness of the [VMS, Inc. contract] approach."

According to the JLARC review, a cost analysis VMS, Inc. itself prepared was based on undocumented or unsupported assumptions and cost allocations, particularly as to the "but, for" comparisons to the costs of maintenance that VDOT had not outsourced:

> The 259 miles of interstate maintained under the contract consists largely of rural highway. VDOT, on the other hand, continues to maintain many miles of both rural and urban highway, including interstate routes in Northern Virginia and Hampton Roads. VDOT is also responsible for maintenance of the tunnels and bridges in Hampton Roads. These facilities are not comparable to any of the facilities maintained under the asset management contract. In fact, the contractor does not maintain the mountain tunnels on I-77 for example. These are maintained by VDOT. Given the problems with the comparison of VDOT budgeted maintenance and the costs under the contract (the contractor's analysis) is not an adequate substitute for an analysis of actual maintenance expenditures. JLARC *Review, 30.*

JLARC also reviewed performance under the contract. A number of recommendations were thought to be necessary to improve performance measures for the contract, increase oversight and develop better comprehensive and consistent oversight guidelines.

In 2001, VDOT renewed the VMS, Inc. asset management contract for the same highway segments to cover the years 2002 – 2007 without any additions or deletions. The no-bid contract extension was accompanied by a negotiated increase in the fixed price for services from the initial five-year (1997 – 2002) price of $ 131 million to a new price five-year (2002 – 2007) price of $ 160 million, an increase of about double the intervening increase in the consumer price index. It has not been reported whether this steep price escalation has washed out any "savings" claim applicable to the renewal term, or whether VDOT will find ways to control future price escalations if the vendor becomes permanently entrenched in these maintenance functions.

One interesting feature of the JLARC review was a survey of 25 VDOT operations managers who were asked to evaluate how outsourcing would effect their own situations. Half said contracting out would not help their own areas perform their primary functions. Half said it would. Fourteen indicated their own area had not actually seen the number of highway maintenance staff positions decrease despite the addition of outsourced services. Twenty-two said that their area had not been able to reduce their overall maintenance costs as a result of outsourcing.

Attempts to expand the scope of maintenance outsourcing in Virginia for several years were frustrated by high bid prices and tight fiscal pressures on the VDOT. For example, an attempt to enter into an additional, separate contract for another area of the state was indefinitely delayed due to the costs of unexpectedly high bids combined with a budget shortfall. (Virginia General Assembly JLARC, *Adequacy and Management of*

VDOT's Highway Maintenance Program, (January 18, 2002), Page 105, & JLARC Staff Briefing, November 13, 2001, retrieved from http://jlarc.state.va.us/meetings/november01/maintpptbw.pdf).

As of August 2003, VDOT was planning to advertise two additional performance based contracts. Unsolicited bids will no longer be accepted.

In general, contracting out highway maintenance in Virginia will continue to be limited in scope if contractor's prices continue to rise while VDOT remains in fiscal straits.

> …contractor costs have been increasing in recent years, further tightening the amount of funding with which the districts have to operate. For example, a district maintenance engineer commented that although the dollar amounts for contracts could increase as a result of longer-term performance based contracts, if the funds stay at the current level, VDOT will be unable to do significantly more contracting (JLARC).

OKLAHOMA

Following direction from newly elected Governor Keating that privatization be embraced as a solution to state budget problems, the Oklahoma Department of Transportation in September 2001, entered into two five-year contracts with VMS, Inc. The contracts covered routine maintenance such as pothole and guardrail repair, snow and ice removal, sign repair and litter pickup, but not major items such as pavement preservation or bridge repair. The service area included 2,576 lane miles of highway in the Tulsa and Oklahoma City areas. The five-year value of the contracts was approximately $36 million.

Legislators urged caution before the contract was entered into, and published press releases like the following:

> Let's do some homework, examine all our alternatives and see what's best for the state . . . If the experience of other states has taught us anything, its that what may look appealing on the surface is often fraught with pitfalls. I'm not anxious to follow the lead of other states that are having problems with the same type of privatization (Senator Carl Hobson, August 26, 1999).

The story of these contracts was short and unhappy: they were cancelled in May 2002, just months after their commencement.

Problems with performance appeared early. By the third month of the contract ODOT began withholding contractor payments for performance shortfalls. By the sixth month of the contract, the payment holdbacks totaled almost a million dollars in the Oklahoma City area and over a hundred thousand dollars in the Tulsa area.

Then, in March 2002, a 7-inch snowstorm hit, problems ensued, and the contractor faced severe public and civic criticism of its performance. Erosion of the company's standing was evidenced by newspaper headlines; "*Tulsa gets snow job from private contractor.*" (Associated Press. (2002, March 6). *Transportation officials to dock private road company for performance*). Other situations, like newspaper photographs of a stop sign lying three days on the ground before repair, added to the negative atmosphere.

Ultimately, Senate Concurrent Resolution 73 passed in May 2002, expressing legislative opposition to outsourcing routine highway maintenance, including snow and ice removal.

The contracts were cancelled, and ODOT is currently in litigation with VMS, Inc. The director was reported as stating that the next time the department hired contractors for maintenance, “they will use experienced Transportation Department managers and the resources of private companies, rather than turning over management to businesses.” (Plumberg Clay, D. (2002, March 24). State officials battle on private contracts. *Sunday Oklahoman*).

TEXAS

Texas is another state that apparently made essentially a political rather than an analytic business judgment to “pilot” roadway maintenance outsourcing, largely driven by claims of expected savings. VMS, Inc. entered into five year contracts (expiring in 2004) for freeway maintenance on highways near Waco and Dallas that totaled approximately 154 centerline miles and 1,350 lane miles.

Interviews with Texas officials suggest that the program has faced significant difficulties. Some of the information is anecdotal but is corroborated by newspaper reporting.

Although VMS had successfully utilized fertilizer trucks to put down icing chemicals and aggregate in a previous year’s snowstorm, in 2001-02 the attempt to use them on icy roads was without much success. Texas DOT crews from elsewhere in the state had to be called in to retrieve the situation. Then, in February 2003, another storm struck Dallas and questions were raised, in the face of massive tie-ups that stranded hundreds of cars and trucks on I-20, whether VMS had mobilized sufficient resources to cope with the clearance requirement (Hartzel, T. (2003, February 28). State studying firm's handling of ice, sanding on clogged I-20 Company could face fines, says some trucks caught in frozen traffic. *The Dallas Morning News*).

One area of special concern has been the contractor’s performance in pavement maintenance. Specifically, the contractor appears to have tended to perform band-aid repairs when more extensive work ought to have been performed. These deficiencies of the contractor’s performance are laid to inexperienced judgment, and poor knowledge of materials. The result has been wasteful expenditures for repairs that the department knows will not last.

Texas in fact administers a statewide “maintenance accountability program” performance outcome measurement system that provides a data source to give substance to anecdotal reports. The system, called TxMAP, generates level of service ratings for maintenance on the I-35 and I-20 segments maintained by VMS, Inc., the outsourcing vendor. On I-35 (Waco), the TxMAP overall rating for pavement, traffic operations and roadside maintenance after hovering around 85% for the first year of ratings, plummeted to 72% by August 2002. On I-20, the TxMAP rating for the three activity areas started at about 82% and had fallen by last August to 69%. Additional detail is seen in figures 1 and 2 (the TxMAP minimum level of service threshold is 80%).

A decision has not been made regarding the three-year renewal option on the existing VMS, Inc. contracts that end in 2004.

Texas has awarded four contracts for total rest area maintenance that involve local contractors working under closer departmental supervision with specific contract language regarding financial disincentives for under performance. Texas is evaluating the effectiveness of disincentives versus incentives in the overall performance of the rest area contracts. Future rest area contracts may include incentives for very high performance and level of service. Although TxDOT considers asset management contracts with sufficient performance evaluations and substantial disincentive/incentive clauses as another useful tool it will not enter into them as a money saving endeavor.

FLORIDA

The Florida Department of Transportation (FDOT) had been contracting out routine maintenance for fifteen years when the Governor of Florida directed FDOT to outsource management on 60% of its contracts by 2006. At the same time, the Governor also directed FDOT to reduce its employee level by 25%.

The department reduced employee numbers by almost 3,000 (mostly in maintenance) and initiated an asset management program that outsourced the planning, administration, management and inspection of routine maintenance highway corridors and facilities such as rest areas, weigh stations, welcome centers and fixed and movable bridges. The advertised benefits include fixed long-term prices, cost savings, risk reduction, savings in administrative costs and performance results.

FDOT has reported the claim that it has achieved 15.7 % in cost savings, or $69.3 million (department wide), from these initiatives across a variety of the department's functions.

There have been three audit reviews of FDOT's initiative. The Office of Program Policy Analysis and Government Accountability (OPPAGA) of the Florida *Legislature Progress Report, Department of Transportation Expedites Privatization, But Savings Uncertain; May be Feasible to Eliminate More Positions*, April 2003, concluded that FDOT could not demonstrate overall savings from reducing in-house employees and expanding privatization in other program areas, but it did report that FDOT may have saved $5.9 million in the maintenance area according to an FDOT prepared analysis.

The Auditor General Report, *Florida Department of Transportation Professional Services Acquisitions Operational Audit,* published January 2003, focused on the procedures and information system used by the Department to acquire and track professional consultant services. This is another important area for transportation department outsourcing. The critical concerns of that audit are outside the scope of this paper for highway maintenance outsourcing and must be addressed in another forum.

The most recent report from the Executive Office of the Governor and Chief Inspector General (*Audit Report, Road Map to Excellence*, June 2003) reviewed 100 audits from seven agencies, including FDOT. The principal finding of the audit was that "controls over contracting are in disrepair." Almost half of the 497 findings reviewed pertained to inadequate performance monitoring.

The Chief Inspector's audit recognized the following risks that may increase with the state's current contracting out approach:

- Financial losses to the state, failure to obtain desired performance by the contractor, payment for defective deliverables, fraud and loss of funding sources.

- Diminished competition, limited availability of commercial sources and failure to obtain desired performance due to selection of less-than-optimal vendors and contractors.

- Disadvantageous agreements, lost time, waste, failure to obtain desired performance, inability to enforce contract terms, and loss of funding resources.

- Managers that pay for inadequate or incomplete goods or services.

- Weak needs assessments that lead to the purchase of unnecessary goods or services.

It remains to be seen how Florida's wholesale commitment to outsourcing, extending well beyond the transportation sector, will be managed to avert these risks and concerns presented by audit review.

BRITISH COLUMBIA

British Columbia, following direction from the Premier Art Charbonneau, embarked on a fast-tracked program in the late 1980's to transfer highway maintenance from the Ministry of Transportation to private contractors. Unlike some of the later programs in the United States, this was not an experiment or pilot on a small segment of the overall highway system. The entirety of the provincial highways (comprising about 25,000 miles of highway and about 2,700 bridges) was divided into 28 contracting zones. Tenders for maintenance contracts were invited and accepted. By late 1989 the province had had divested itself of most of its highway maintenance employees and its extensive inventory of equipment. From that point, there could be no turning back. Round One contracts covered the period 1989-1991. Round Two was put in place for 1991 – 1994. Round Three covered 1994 – 1996. Round Four contracts, for 1996 – 2004, are now in place. Round Five will be bid for 2004 – 2014.

The "Burton" Report

Several reviews have been made of the British Columbia experience. One of the most thorough was performed at the request of the Ministry in 1993 – 94 by an independent panel including the accountants Ernst & Young. The panel issued a report *The Operational, Human Resource and Financial Implications of the Provincial Highway Maintenance Program of the Province of British Columbia* (referred to as the "Burton Report" after its lead panelist, Peter Burton, counsel to the 1993 Commission of Inquiry into the Public Service and Public Sector). The Burton report observed:

> Privatization was a politically motivated program that would not have been implemented in its current form if adequate research, impartial analysis of alternatives and careful re-engineering of maintenance processes had been performed before the decision to privatize the program had been made. (British Columbia Ministry of Transportation, *The Operational, Human Resource and Financial Implications of the Privatized Highway Maintenance Program of the Province of British Columbia*, Peter Burton, Ron Parks, Kevin McCulloch, Ernst & Young, and Robert Harvey. June 1994.)

As for the claims of "cost savings" from the program, the Burton Report found these were tied to unsupported guesstimates of future costs under a non-privatized scenario – future projections that were too high to be consistent with what the public sector would probably have actually achieved in the future. Doing what the Ministry had failed to do – reviewing actual costs incurred under past arrangements and post privatization, the Burton Report concluded:

> There are strong indications that the cost of the Ministry's privatized highway maintenance program has exceeded the cost profile of the Ministry's original [pre-privatization] program in every year since inception. (Burton Report. Page 3)

The Report estimated that the cost increase of privatization over the prior program probably amounted to $15 to $29 million per year, or over $100 million in total from the inception of the program to the date of the report.

The Burton Report expressed particular concern whether private contractors were giving adequate attention to pavement and other critical preservation priorities, as contrasted with the "enthusiastic" pursuit of more visible, less complicated tasks such as mowing. (Burton Report. Page 18). The financial exposure of the province to long term costs for preservation was seen in the Burton Report as a major concern.

Wholesale dismantling of the province's public sector capability to perform highway maintenance – both the loss of the people and the divestiture of all the equipment and other physical assets, proved to have important costs of the Province. The Burton Report noted, for example, that the ability of road and bridge crews to do other work from time to time was lost (Burton Report. Page 21). Equally important, skill and experience in the *supervision* of bridge and highway maintenance no longer would grow out of the ranks, and would prove expensive to support (the Province eventually hired 150 new positions to provide supervision of the contractors, a significant expense excluded from various "cost savings" proclamations).

The Burton Commission was forced to accept that British Columbia had lost the ability to turn back. What was disposed of could no longer be re-built in the public sector. Even the Burton Report, despite its key findings that privatization was causing highway and bridge maintenance to cost more than it would have under public management, declared that the only course now lay in trying to improve the effectiveness of contracting for, monitoring and supervising the new regimen of private vendors.

Experience since the Burton Report appears to suggest another area of concern as to whether the public will benefit from true competition of private firms aggressively bidding against one another for maintenance contract opportunities. In bidding for Round Two (1990), 18 firms were awarded contracts for the 28 service areas. In this round, 68% of the 28 contracts were bid on by three firms or fewer, and almost 40% of the contracts by two firms or fewer. In bidding for Round Four (1996), the trend toward market concentration continued: the percentage of contracts bid on by three firms or fewer rose to 74%. In Round Four the total number of firms involved in the award of the contracts for the 28 service areas across the province as a whole had fallen to 15 contractors.

The Ministry of Transportation is now preparing for a new round of bidding. In the new round, a shift will be made toward greater use of "Performance Based Contracts" which will feature fewer prescriptive standards and specifications in the hopes that contractors will use this flexibility to innovate. Contractors will be randomly audited and rewarded with financial incentives for high performance.

One of the difficulties the Ministry continues to face is rising insurance and third party litigation costs. Though the outsourcing program has shifted most responsibility for performance and much of the responsibility for control to the private sector, risk shifting has not followed. The Ministry apparently intends for the next round of tenders to impose on contractors only 20% of the liability risk and retain 80% of the liability risk on the province.

Maintaining a trained and experience management team has been another challenge. The British Columbia Institute of Technology is offering certification in bridge maintenance, construction maintenance, math, soils and management. Some predict that careers with the Ministry will become less attractive and after a few years of experience many will transition to the private sector.

The trend to outsource in British Columbia continues. Preventive maintenance system and striping will be outsourced soon. Remaining maintenance yards will be surplussed and in 2004 Ministry employee numbers will be reduced to 900.

CONCLUSIONS

There are many observations that can be drawn from these reviews of outsourcing experience. Chiefly, they include:

1. **Audits and other after-the-fact reviews of state highway maintenance outsourcing programs have broadly shown that initial claims of projected cost savings and service benefits are, at best, difficult of substantiation and, at worst, demonstrably overstated.**

2. **Highway maintenance outsourcing programs have a tendency to under perform their advertised expectations to the extent that they are characterized by some or all of the following:**

    - Political motivation and direction as contrasted to business and economic analysis to support the program's goals and organization.

    - Entry into outsourcing agreements that are not built of careful asset inventories and sound history and trend data on maintenance and activities and costs to serve as the contracting baseline.

    - Insufficient attention to conducting disciplined analysis of the existing state-based service arrangements to support objective judgments about areas of strength (where outsourcing may add little value) and weakness (where outsourcing may provide true opportunities for adding value or improving efficiency).

    - Failure to assure that true market mechanisms (adequate numbers of bidders, appropriate biddable renewal opportunities, and so forth) will protect the state from becoming the future "captive" of its outsourcing vendor or vendors;

    - Wishful disregard of the need for strong and continuing contract administration and performance monitoring/supervision, including the retention, recruitment and advancement of public agency personnel with adequate skills and experience to perform these functions.

- Careful attention to the contractual provisions for on-going performance inducements and controls. Needed are: unambiguous specifications; effective guarantees of vendor management capability and financial responsibility/guarantees; provision for effective on-going performance reviews and audits; and financial incentives and penalties tied to performance.

- Lack of attention to risk allocation and third-party liability/surety/insurance issues.

- Lack of a contingency scenario if the public sector must step back in to a service role, either because of failed contractor performance during the contract, or for a post-contract scenario should the outsourcing prove unsuccessful or incapable of satisfactory extended procurement (The contingency scenario should include reasonable protection against nuisance litigation from vendors who, for one reason or another, have fallen out of constructive business relationships with the state).

3. **Finally, no outsourcing plan is likely to be capable of being established unless a true financial plan has been developed that takes account of at least the following and can be tracked against the goal:**

- Direct costs of the vendor's services.

- Avoided costs from termination of in-house service costs.

- Short and long-term implications of the outsourcing plan for equipment and facilities held by the public – disposed of at what cost? Future emergency unavailability – what cost?

- Full costs of adequate contractual administration, management and supervision, taking into account the likely need to observe numerous separate and independent subcontractors whom the vendor may actually rely on (rather than its own forces) to provide service.

- True costs of existing worker displacement, re-training, "out-placement," and so forth.

- Asset management costs derived from outsourcing expectations vs. long-term asset preservation and re-investment/rehabilitation needs (Maintenance deferrals at the hands of outsourced vendors will return to the state as exacerbated long-term repair and replacement costs).

- Secondary and incidental costs of loss of existing skill/knowledge base especially as to system conditions and needs. Costs of alternative acquisition of this public asset.

- Risks of service disruption from strikes and other labor harmony issues resulting from placing critical public functions outside the realm of labor law limitations that over many years have been built up to govern public sector rules assuring critical public services.

Perhaps the most important conclusions from this review are these:

4. The entire body of materials rings with the conclusion that *business*, not *politics*, must lie at the heart of the evaluation and design of a highway maintenance outsourcing opportunity.

This proposition, of course, is already well presented in broader commentaries such as Sklar on the economic ideology of privatization.

> If we are truly concerned about the long-term efficiency and effectiveness of the public sector, then we need to move the analysis beyond anecdotal assertions. Regardless of number, they do not make a case one way or the other. They become useful only when integrated into a comprehensive conceptual frame of reference that enables analysis of the potentials and limits of contracting for fulfilling the mission of the public sector. To the extent that this frame of reference diminishes the superficial generality of the appeal of privatization as a management strategy, it serves two beneficial social purposes: we can bring more powerful management tools to bear on the challenge of (1) efficient and (2) effective public agency operation (Sklar, Page 13).

A poor privatized highway maintenance program will not be as efficient or as successful as a good public agency program. A poor public program must be improved – an outsourcing program may be one way to do so. However, modern management offers many other equally suitable – and challenging – options. Management, not ideology, is the key to achieving the overall goal of improved efficiency and value in delivering the services that tax dollars support.

5. The considerable body of audit materials and reviews – from state auditors and legislative audits in particular – are an excellent learning tool that should be consulted by anyone desiring to consider or implement an outsourced program.

This paper in fact highlights the value of a body of professional literature than includes virtual "textbooks" for practitioners in transportation departments. The summaries of the reports presented here comprise just the beginning of the useful insights that close reading of the reports can provide.

Meanwhile, activity among the states continues to be very lively in this area. Comments on this paper and suggestions concerning additional experience that should be incorporated into this summary would be welcome at ribrean@wsdot.wa.gov.

For more information regarding Highway Maintenance in the State of Washington please visit http://www.wsdot.wa.gov/biz/maintenance/

TABLE 1. TxMAP Results for Interstate 35 (July 1999 – August 2002)

Maintenance Activity	I-35	I-35	I-35	I-35	I-35	I-35	I-35
	July-99	May-00	Oct-00	Mar-01	Aug-01	Jan-02	Aug-02
Pavement	85.66%	86.51%	80.29%	70.82%	75.77%	73.57%	65.94%
Traffic Operations	85.97%	69.90%	87.74%	72.26%	73.25%	79.65%	73.53%
Roadside	84.77%	89.14%	90.46%	83.16%	85.64%	83.87%	80.92%
Total Score	85.40%	83.34%	85.97%	75.81%	78.23%	77.87%	71.95%

TABLE 2. TxMAP Results for Interstate 20 (October 1999 – August 2002)

Maintenance Activity	I-20	I-20	I-20	I-20	I-20	I-20	I-20
	Oct-99	May-00	Oct-00	Mar-01	Sep-01	Jan-02	Aug-02
Pavement	83.91%	84.74%	91.16%	77.11%	76.00%	82.79%	70.15%
Traffic Operations	74.36%	52.83%	74.67%	62.50%	62.25%	68.89%	59.60%
Roadside	86.44%	85.14%	83.02%	70.06%	85.04%	82.06%	73.83%
Total Score	82.47%	76.91%	83.98%	70.81%	75.96%	79.79%	69.14%